



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
[www.uspto.gov](http://www.uspto.gov)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/527,584	03/17/2000	Peter J. Ashwood Smith	9-13528-94US	2892
20988	7590	08/08/2003		
OGILVY RENAULT 1981 MCGILL COLLEGE AVENUE SUITE 1600 MONTREAL, QC H3A2Y3 CANADA			EXAMINER ZIA, SYED	
			ART UNIT 2131	PAPER NUMBER
			DATE MAILED: 08/08/2003	

4

Please find below and/or attached an Office communication concerning this application or proceeding.

3

24

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	09/527,584	ASHWOOD SMITH, PETER J.	
	<b>Examiner</b>	<b>Art Unit</b>	
	Syed Zia	2131	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### **Status**

- 1) Responsive to communication(s) filed on 12 June 2003.
- 2a) This action is **FINAL**.      2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### **Disposition of Claims**

- 4) Claim(s) 1-28 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) Claim(s) \_\_\_\_\_ is/are allowed.
- 6) Claim(s) 1-28 is/are rejected.
- 7) Claim(s) \_\_\_\_\_ is/are objected to.
- 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### **Application Papers**

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

- 11) The proposed drawing correction filed on \_\_\_\_\_ is: a) approved b) disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) The oath or declaration is objected to by the Examiner.

#### **Priority under 35 U.S.C. §§ 119 and 120**

- 13) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) All b) Some \* c) None of:
1. Certified copies of the priority documents have been received.
  2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

- 14) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) The translation of the foreign language provisional application has been received.
- 15) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

#### **Attachment(s)**

- |   |   |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                              | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)          | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____. | 6) <input type="checkbox"/> Other: _____                                    |

## **DETAILED ACTION**

### ***Response to Amendment***

This office action is in response to arguments filed on June 12, 2003 (Paper No. 3).

Original application contained Claims 1-28. Applicant amended Claims 12, 26, and left unchanged Claims 1-11, 13, 25, and 27-28. The amendment filed have been entered and made of record. Presently pending claims are 1-28.

### ***Response to Arguments***

Applicant's arguments filed on June 12, 2003 (Paper No. 3) have been fully considered but they are not persuasive because of the following reasons:

Regarding Claims 1, and 15 applicants argued that the cited admitted prior art (APA) [Hsu] (U. S. patent 6,363,319) does not teach, "*a method for managing the logical allocation of physical network resources between connection-oriented and connectionless traffic*", "*manages allocation of network resources between competing MPLS flow*".

This is not found persuasive. APA teaches system and method for selecting a route for a flow from a number of network paths connecting a source to a destination, that involves: determining cumulative costs for a number of candidate paths from the computer network paths using a cost bias which is dynamically calculated based on at least one of a flow attribute and a path attribute; and selecting an optimal path, corresponding to the selected route, having a minimum of the cumulative costs. APA provides simple and efficient selection of routes in a system of computer networks. Increases traffic efficiency by taking into account bandwidth and the traffic

Art Unit: 2131

requirements in route selection by selecting an optimal path corresponding to the selected route and having a minimum of the cumulative costs, and a route selection system (col.6 line 11 t col.8 line 35).

As a result, APA does implement and teaches a system and method of efficient, and dynamic allocation of shared network resources between connection-oriented and connectionless traffic in a communication network.

Applicants clearly have failed to explicitly identify specific claim limitations, which would define a patentable distinction over prior arts.

The examiner is not trying to teach the invention but is merely trying to interpret the claim language in its broadest and reasonable meaning. The examiner will not interpret to read narrowly the claim language to read exactly from the specification, but will interpret the claim language in the broadest reasonable interpretation in view of the specification. Therefore, the examiner asserts that APA does teach or suggest the subject matter broadly recited in independent and dependent claims. Accordingly, rejections for Claims 1-28 are respectfully maintained.

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

- (e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

1. The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) do not apply to the examination of this application as the application being examined was not (1) filed on or after November 29, 2000, or (2) voluntarily published under 35 U.S.C. 122(b). Therefore, this application is examined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

2. Claims 1-28 rejected under 35 U.S.C. 102(e) as being anticipated by Hsu. U. S. Patent 6,363,319.

3. Regarding Claims 1, and 15 Hsu teaches and describes a system and for selecting a route for a flow from a number of network paths that involves selecting route based on cost bias that is dynamically calculated based on flow and path attributes, comprising:

- determining a resource requirement of the connection-oriented traffic, and dynamically adjusting a respective connectionless traffic metric based on the determined resource requirement of the connection-oriented traffic (col. 2 line 50 to col.3 line 38).

4. Claims 2, 4, 16 and 18 are rejected applied as above rejecting Claims 1, and 15. Furthermore, Hsu teaches and describes allocation of resources routed through a shared physical network, wherein

- the connection-oriented traffic comprises multi-protocol label switched (MPLS) traffic (Fig.2, and col.5 line 7 to line 24); and

- the connectionless traffic comprises internet protocol (IP) packet traffic (Fig. 1A, and col.3 line 39 to line 53).

5. Claims 3, 5, 17, and 19 are rejected applied as above rejecting Claims 2, 4, 16 and 18.

Furthermore, Hsu teaches and describes dynamic allocation of shared network resources, comprising:

- the step of determining the resource requirement of the connection-oriented traffic comprises the steps of: receiving MPLS reservation requests in respect of the shared physical network element, and dynamically adjusting a total amount of resources required to satisfy the received MPLS reservation requests (col.1 line 66 to col.2 line 10, col.5 line 28 to line 55);

- routing of the connectionless traffic is controlled using an interior gateway protocol (IGP) routing system adapted to calculate a shortest path route of the connectionless traffic through the communications network, the shortest path routing being based on a respective metric of each physical network element forming the network (Fig.2, and col. 5 line 7 to line 24).

6. Claims 6, 7, 11, 20, 21, and 25 are rejected applied as above rejecting Claims 5, and 19.

Furthermore, Hsu teaches and describes system and method of route selection, wherein:

- the step of dynamically adjusting the respective metric comprises the steps of: increasing the respective metric as the determined resource requirement of the connection-oriented traffic increases, and decreasing the respective metric as the determined resource requirement of the connection-oriented traffic decreases (col.6 line 11 to line 55);

- the respective metric is a link distance vector associated with a respective link connected to a node of the communications network, and the respective metric is a link cost

factor associated with a respective link connected to a node of the communications network (Fig.3, and col.5 line 25 to col.6 line 9).

7. Claims 8-10, 12-14, 22-24, and 26-28 are rejected applied as above rejecting Claims 7, 21, and 25. Furthermore, Hsu teaches and describes resource management in communication network, wherein:

- the step of dynamically adjusting the respective metric comprises the steps of:

determining an updated value of the link distance vector, and updating a mapping table maintained by the node with the updated value of the link distance vector (col.6 line 56 to col.7 line 34);

- the step of determining an updated value of the link distance vector comprises a step of querying a resource allocation table comprising a plurality of characteristic resource allocation values and a respective link distance vector value corresponding to each characteristic resource allocation value (col.4 line 31 to line 47, and col. 5 line) to line 13);

- the step of querying the resource allocation table comprises the steps of: identifying the characteristic resource allocation value which most closely matches the determined resource requirement of the connection-oriented traffic, and selecting the corresponding link distance vector as the updated link cost factor (col.11 line 53 to line col.12 line 3);

- the step of dynamically adjusting the respective metric comprises the steps of: determining an updated value of the link cost factor, updating a PATH table maintained by the node with the updated link cost factor value, and propagating a link state packet containing the

updated link cost factor value to neighboring nodes within the network (col.9 line 15 to col10 line 62);

- the step of determining an updated value of the link cost factor comprises a step of querying a resource allocation table comprising a plurality of characteristic resource allocation values and a respective link cost factor value corresponding to each characteristic resource allocation value (col.8 line 48 to col.10 line 9);

- the step of querying the resource allocation table comprises the steps of: identifying the characteristic resource allocation value which most closely matches the determined resource requirement of the connection-oriented traffic, and selecting the corresponding link cost factor as the updated link cost factor (col.10 line 21 to line 62).

### *Conclusion*

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37

CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Syed Zia whose telephone number is 703-305-3881. The examiner can normally be reached on Monday - Friday 9:00 AM to 5:00 PM EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ayaz Sheikh can be reached on 703-305-9648. The fax phone numbers for the organization where this application or proceeding is assigned are 703-746-7239 for regular communications and 703-746-7238 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-746-7240.

SZ  
August 4, 2003

  
AYAZ SHEIKH  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2100